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Georgia-Pacific LLC			DUCHENEAUX, FRANK D	
133 Peachtree Street NE - GA030-41				
ATLANTA, GA 30303			ART UNIT	PAPER NUMBER
			1794	
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			08/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,325	BASLER ET AL.	
	Examiner	Art Unit	
	FRANK D. DUCHENEAUX	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 May 2009.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-12 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 06 May 2009 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Examiner note

The examiner notes that the clean version of the substitute abstract on page 17 of applicants' response to the action dated 1/13/2009 contains numerous inconsistencies with the marked up copy of the abstract on page 6 of said response.

For example, the marked up copy shows a strike-through of "cavities (12)," while the clean copy shows this portion of the abstract has not been removed. As such, the clean copy has not been entered.

The examiner notes that the marked up copy of the specification does not demonstrate all the appropriate corrections. Several additions that were made have not been underlined, i.e. "BACKGROUND OF THE INVENTION." As such, the clean copy has not been entered.

The examiner notes that, since the substitute specification has not been entered, all objections to the specification/abstract/drawings from the office action dated 1/13/2009 are maintained and repeated below.

The examiner notes that that the clean version of the claims reiterates the errors in the claims filed 4/3/2006 that were corrected in the marked up version. However, it is noted that a clean

copy of the claims is not necessary and that it is the marked-up copy of the claims that have been examined as set forth below.

Election/Restrictions

1. Applicant's election of Group I, claims 1-12 in the reply filed on 5/6/2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. **Claims 13-20** withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention(s), there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/6/2009.

The examiner acknowledges applicants' cancellation of claims 13-20.

Response to Amendment

3. Applicant's arguments, see page 8, filed 5/6/2009, with respect to the rejections of claims 1-12 under 35 U.S.C. 112, 2nd paragraph as annotated in paragraphs 19-20 in the office action

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dated 1/13/2009 have been fully considered and are persuasive. The rejection of claims 1-12 as annotated in said paragraphs has been withdrawn.

4. Applicant's arguments, see page 8, filed 5/6/2009, with respect to the rejections of claims 1-12 under 35 U.S.C. 112, 2nd paragraph as annotated in paragraph 21 for claim 6 ONLY in the office action dated 1/13/2009 have been fully considered and are persuasive. The rejection of claims 1-12 as annotated in said paragraph toward said claim 6 has been withdrawn.

5. Applicant's arguments, see page 8, filed 5/6/2009, with respect to the rejections of claims 1-12 under 35 U.S.C. 112, 2nd paragraph as annotated in paragraph 23 for claim 8 in the office action dated 1/13/2009 have been fully considered and are persuasive. The rejection of claims 1-12 as annotated in said paragraph has been withdrawn.

Specification

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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7. The abstract of the disclosure is objected to because it does not consist of a single paragraph. Correction is required. See MPEP § 608.01(b).

8. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

9. The abstract of the disclosure is objected to because the abstract should not refer to the purported merits of the invention and, as such, the last line of the abstract should be omitted. Correction is required. See MPEP § 608.01(b).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

10. The disclosure is objected to because of the following informalities: 1) The specification lacks appropriate headings for its sections (see above); 2) a word seems to be missing after the word "rigid" on line 11 of page 1; 3) In the description of the drawings for figure 2, the applicants have specified a cross-section as II-II, where the drawings have labeled a cross-section as 2-2; 4) On page 12, line 6 the specification states that "...the embossing of the second ply P2 is as visible on FIGURE 5." The examiner notes that there is no embossment of P2 and further, it is not clear what is meant by this statement. The specification has not been checked to the

extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Appropriate correction is required.

Drawings

11. The drawings are objected to under 37 CFR 1.83(a) because they fail to show level difference, N_A , as described on page 8 of the specification and edge D_A as described on page 10 of the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

12. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “20” has been used within the specification in three different manners; as a third cavity, third protuberance and third projection. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

13. The claims are objected to because they include reference characters which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in

the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

Claim Rejections - 35 USC § 112

14. **Claims 1-12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, said claim recites the limitation "...representing a contour (D) formed by a marking line." It is unclear as to how the limitation provides structural definition to the present invention or in what manner first zones (A1) "represent" said contour (D).

Regarding claim 5, the phrases "linear shape" and "alignments of protuberances" are ambiguous as it does not distinguish as to which characteristic(s) of the protuberance (e.g. outer walls) are linear nor against which reference(s) the alignment is based.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claim 1** is rejected under 35 U.S.C. 102(b) as being anticipated by Edwards et al (US Patent 6511579 B1) taken in view of Merriam-Webster's online dictionary.

Regarding claims 1-8, Edwards teaches a multi-ply tissue paper product (column 23, lines 29-32), whereby a two-ply (P₁ and P₂) tissue is a preferred embodiment (column 27, lines 43-45) and the basis weight (grammage) for each ply (column 26, lines 35-38) is 18.6 lbs./3000 ft² (column 29, lines 35-36) or:

$$\frac{18.6 \text{ lbs.}}{3000 \text{ ft}^2} \times \frac{1 \text{ ft.}^2}{(0.305m)^2} \times \frac{453.6g}{1 \text{ lbs.}} \approx \frac{30g}{m^2}$$

Edwards continues to teach (column 24, lines 51-56) a sheet that is embossed in a "mated" process such that the protrusions in the pattern are matched with indentations of similar size (a two-ply sheet or web would necessarily comprise protuberances of a first ply adjacent to the indentations of a second ply) and that an opposite side of an embossed ply would contain cavities corresponding to said protuberances (figures 21b-2-21b-3 and 21c2-c3). Edwards further teaches an emboss pattern (first zone cells with first cavities) of diamond shapes (column 25, lines 35-36 and figure 21b-1 – 21b-3) surrounded by a different emboss pattern (second zones with second cavities) (figure 21c-1, peripheral circles and figure 21c-3, inclusive of reference numbers 14, 15 and 18), whereby the emboss pattern has a greater height (relief, N₁) than the different emboss pattern (figure 21c-1 and 21c-3 reference numbers 11, 12 and 18); figure 22 of Edwards teaches contoured demarcation (white area surrounding string of black dots) between the emboss pattern

and the different emboss pattern. The examiner notes that a Merriam-Webster definition of relief is “the elevations or inequalities (differences, N_1) of a... surface.”

Regarding claim 2-8, Edwards teaches an emboss pattern whereby the female elements (first cavities) have a lesser depth (equal + N_1) than the female elements (second cavities) of the different emboss pattern (figures 21c-1 and 21c-3, reference numbers 13 and 18, respectively). Edwards also teaches an area that does not include embossments between the different emboss pattern (figure 22 unshaded areas) and areas which do include other embossment areas with other emboss patterns other than the emboss pattern and the different emboss pattern (figure 2, heart pattern), whereby the said other emboss patterns possess a curvilinear shape while further being aligned along their periphery with the inner periphery of the diamond shapes of the emboss pattern (figure 22, heart pattern elements). Edwards continues to teach that the said different emboss patterns are aligned with said contoured demarcation (figure 22) and said emboss patterns' cavities are tapered (figure 21c-3, reference numbers 2 and 4, for example). Edwards further teaches an additional emboss pattern (tulip of figure 22) that consist of cavities (third cavities) in the area of the emboss pattern (figure 21c-1, reference numbers 16-17) and that the top of the additional emboss pattern's cavities is flat (figures 21c-1 and 21c-3, reference number 19).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claim 9** is rejected under 35 U.S.C. 103(a) as being obvious over Edwards et al (US Patent 6511579 B1) in view of Graff et al (WO 03/050353). It is noted that disclosures set forth below with respect to Graff et al. are based on US 2005/0034828, which is an English equivalent of the reference.

Regarding claim 9, Edwards teaches a multi-ply tissue paper product as in the rejections of claims 1-5 above. Edwards fails to teach a second ply P₂ that is not embossed.

However, Graff teaches a multi-layer sheet of absorbent paper (title) comprising two plies mounted one on the other (Para. 0030, lines 1-5), whereby the first ply is embossed (figure 2,

reference 12) and the second ply is unembossed (para. 0031, line 1-2 and figure 2, reference number 14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Edwards with the inventive concepts of Graff to obtain a tissue paper as in the present invention wherein the first ply is embossed and the second ply is not embossed to provide a multi-ply tissue paper with specific mechanical properties such as tensile strength, absorptivity, softness, obviating degradation of crush resistance and aesthetic appeal.

5. **Claims 10-12** are rejected under 35 U.S.C. 103(a) as being obvious over Edwards et al (US Patent 6511579 B1) in view of Roussel et al (US Patent 6524683 B1).

Regarding claims 10-12, Edwards teaches a multi-ply tissue paper product as in the rejections of claims 1-8 above. Edwards fails to teach a second ply that is embossed and presents protuberances, whereby the two plies are in contact through the tops of the protuberances corresponding to the second and/or third cavities or that the plies are bonded through glue on the top of the second and/or third protuberances; or that the first protuberances are not glued.

However, Roussel teaches a sheet of embossed absorbent paper (title) - towards improved pattern resolution and emphasis of a background pattern (column 2, lines 32-34) - of two plies whereby each ply (first and second ply) comprises a first embossed zone (column 4, lines 62-63) and two or more adjacent second zones (column 5, lines 49-54) comprising protuberances/salients (corresponding to cavities) whereby the two plies are in contact with each other through the tips

of their respective protuberances (figures 1-4 and claim 3). Roussel continues to teach that the salients (protuberances) coincide perfectly (column 4, lines 54-55 and figure 2)) and that the two plies can be assembled by bonding via gluing or knurling (not glued) (column 3, lines 40-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Edwards with the inventive concepts as taught by Roussel to obtain a tissue paper as in the present invention with specific mechanical properties such as tensile strength, absorptivity, softness and aesthetic appeal as well a means for securing together the two said plies with or without an adhesive as is dictated by industrial necessity.

Response to Arguments

16. Applicant's arguments, on page 8, filed 5/6/2009, with respect to the rejection of claims 1-12 under 35 U.S.C. 112, 2nd paragraph have been fully considered but they are not persuasive.

The applicants have amended claim 1 to “representing a contour (D) formed by a marking line” in response to the rejection as put forth in paragraph 21 of the action dated 1/13/2009. The examiner notes that, with respect to figure 2 of the drawings, to which contour (D) and first zones (A₁) refers, it remains ambiguous as to how, within the scope of the present invention, said the first zones “represent” (D). The portion of the rejection is therefore maintained and restated above.

The applicants have amended claim 5 to recite protuberances in place of cavities in response to the rejection as put forth in paragraph 22 of the action dated 1/13/2009. However, the applicants' amendment fails to address the ambiguity of a "linear shape" or the "alignments." The applicants are directed to figure 8, to which third zones (A4) refers. It is further unclear from this illustration what is linear about the flower-like figure and to what the flower-like figure is aligned. The rejections are maintained and restated above to reflect the amended claim language.

17. Applicant's arguments, pages 8-9, filed 5/6/2009, with respect to the rejection of claim 1 under 35 U.S.C. 102(b) over Edwards et al. (US 6511579 B1) have been fully considered but they are not persuasive. The examiner's complete response to the arguments follows:

The applicants argue that figures 21b-1 to 21b-3 illustrates only a single ply paper and that, even though Edwards discusses that one or two ply products are preferred, Edwards provide no teaching to arrange protuberances according to the limitations of claim 1; that Edwards teaches a micropattern including male elements, which correspond to protuberances alternating with female elements, which correspond to cavities, and a macropattern made up of female elements only, thereby resulting in a one-ply structure. Applicants continue to argue that Edwards fails to teach forming protuberances that are adjacent to a second ply, i.e. the protuberances being not visible, wherein each ply is embossed according to a pattern of cavities on one side corresponding to protuberances on the other side.

The examiner restates that Edwards does teach a two-ply embodiment, which would necessarily provide the protuberances of a ply adjacent to the second ply and, while Edwards does not necessarily state that the protuberances are visible or not, there is nothing in the limitations of the current claim that requires or even suggests that the protuberances are visible. In addition, one of ordinary skill in the art would recognize that an embossment one or multi-ply web or sheet would provide protuberances on one side of said web or sheet and that said protuberances would correspond cavities on the other side of said web or sheet. Finally, there is nothing in the limitations of the current claim that requires or even suggests that each ply is embossed.

The applicants argue that zones A₁ with first protuberances surrounding second zones A₂ with second protuberances with A₁ being in relief, e.g. raised, on the outer side respective to A₂ with a level difference N₁, and A₁ represents a contour D formed by a marking line is not taught by Edwards. Applicants also put forth that Edwards does not teach a difference in the levels of the diamonds and circles nor are the diamonds and circles in relief relative to one another, but instead are on the same level since they share a common mid plane.

The examiner respectfully disagrees with the applicants' assertion that the Edwards reference's midplane does not provide a relief or a difference in the levels between the diamond and circle shapes. As recited in paragraph 25 of the action dated 1/13/2009, the emboss pattern of the diamonds has a greater height than the different emboss pattern of the circles, regardless of any shared midplane and, as defined by the Merriam-Webster passage included in said action, such a

elevational difference in structure would constitute a relief structure. Further embossments of the type demonstrated in Edwards, and their consequent cornered profiles, would inherently provide a line of demarcation, parallel to a web or sheet, as the figures (i.e. 21c-3), clearly demonstrate. As such, the rejection of claim 1 is maintained and restated above to reflect the language provided in the applicants' amendments.

18. Applicant's arguments, page 9, filed 5/6/2009, with respect to the rejection of claim 2 under 35 U.S.C. 102(b) over Edwards et al. (US 6511579 B1) have been fully considered but they are not persuasive. The examiner's complete response to the arguments follow:

The applicants restate their argument with respect to claim 1 in that Edwards fails to teach a level difference between the diamond and circle emboss patterns and that there exists no relief between the two patterns. The applicants further state that, accordingly, since the Edwards fails to teach the claim limitations of current claim 1, the diamonds of Edwards are not at a depth at most equal to the depth of the circles plus a level difference.

The applicants are directed to the rejection of claim 2 above, restated to include the applicants' amendments. The applicants are further directed to both their arguments and to the open language of the current claim, which states that first protuberances are at the most equal to the depth of the second protuberances plus the level difference. DIM# 13 (diamond pattern) provides a depth for the female elements, which is not as deep as the female elements of DIM# 18 (circle pattern). It is noted that the open language employed by the applicants provides that the

depth of the first protuberances can be less than or equal to the depth of the second protuberances, which Edwards clearly teaches and the “plus” recitation can be interpreted to mean that the depth of the first protuberances can be increased in depth by addition of N_1 or decreased in depth by subtraction of N_1 , depending on whether upward or downward in a thickness direction of the sheet is taken to be positive or negative.

19. Applicant's arguments, page 10, filed 5/6/2009, with respect to the rejection of claims 10-12 under 35 U.S.C. 103(a) over Edwards et al. (US 6511579 B1) in view of Roussel et al. (US 6524683 B1) have been fully considered but they are not persuasive. The examiner's complete response to the arguments follow:

The applicants argue that claim 10, which depends from claim 8, requires first, second and third protuberances. Applicants restate their assertions regarding claims 1-2 that Edwards fails to teach a level difference between the diamond and circle emboss patterns and that there exists no relief between the two patterns. Applicants also argue that claim 10 requires that the sheet be joined through the tops of the second or third protuberances, while the Roussel reference teaches that the tops of the protuberances are coplanar. Consequently, it is the applicants' assertion that the combination of Edwards and Roussel fails to teach said plies being joined through the tops of select ones of the protuberances leaving others of the protuberances not in contact.

The applicants are directed to the rejection of claim 8 above, which teaches an additional emboss pattern with cavities (third cavities corresponding to third protuberances) in the area of the

emboss pattern. The examiner notes that while the combination of the Edwards reference and the analogous Roussel reference do not teach contact between some salients and a lack of contact between others, the current claim requires only contact between the tops of the second protuberances or the third protuberances, imposing no restriction or requirement on the contact, or lack thereof, between the remaining protuberances or of any such select one of protuberances.

20. Applicant's arguments page 10, filed 5/6/2009, with respect to the rejection of claims 10-12 under 35 U.S.C. 103(a) over Edwards et al. (US 6511579 B1) in view of Roussel et al. (US 6524683 B1) have been fully considered but they are not persuasive. The examiner's complete response to the arguments follow:

The applicants argue that claim 11 requires that the two plies be bonded via at least one application of glue to the top of the second or third protuberance while dependent claim 12 requires that the first protuberances not be glued and that the combination of the Edwards and Roussel fail to teach a two ply sheet with first, second and third protuberances, wherein the second and third protuberances are bonded via glue and the first protuberances are not glued.

The examiner directs the applicants' attention to the rejection of claims 10-12 above to include Roussel's teaching of two plies bonded together at the tips of their protrusions via gluing or knurling and Edwards disclosure of emboss patterns, different emboss patterns and additional emboss patterns. It is noted that the additional emboss patterns and the different emboss patterns have depths greater than the emboss patterns and so when combined with the analogous Roussel

reference, which teaches the use of glue to bond respective salients, those salients/protuberances with the greatest depths would intrinsically be bonded via glue while those of lesser depth not.

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK D. DUCHENEAUX whose telephone number is (571)270-7053. The examiner can normally be reached on M-Th, 7:30 A.M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie E. Shosho can be reached on (571)272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FDD

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794